

REMARKS

Favorable consideration of this Application as presently amended and in light of the following discussion is respectfully requested.

After entry of the foregoing Amendment, Claims 13-35 are pending in the present Application. Claims 1-12 have been canceled without prejudice or disclaimer. Claims 13-35 are new. Support for new Claims 13-35 can be found at least at pages 5-12 of the specification. No new matter has been added.

By way of summary, the Official Action presents the following issues: Claims 9-12 stand rejected under 35 U.S.C. § 101; Claims 1-5, 7, and 8 stand rejected under 35 U.S.C. § 102 as being anticipated by Fuller et al. (U.S. Patent No. 6,833,865, hereinafter Fuller); Claim 6 stands rejected under 35 U.S.C. § 103 as being unpatentable over Fuller in view of Adcock (U.S. Patent No. 4,057,830); and, Claims 9-12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fuller.

REJECTION UNDER 35 U.S.C. § 101

The outstanding Official Action has rejected Claims 9-12 under 35 U.S.C. § 101. As Claims 9-12 have been canceled and no corresponding claims have been added by this Amendment, Applicants respectfully submit that this rejection has been rendered moot.

REJECTION UNDER 35 U.S.C. § 102

The outstanding Official Action has rejected Claims 1-5, 7, and 8 under 35 U.S.C. § 102 as being anticipated by Fuller. The Official Action contends that Fuller discloses all of the Applicants' claimed features. While these claims are canceled, Applicants will treat this rejection as if applied to new Claims 13-35. Applicants respectfully traverse the rejection.

By way of background, audio visual production methods are known in which video images may be captured by a portable device and later transferred to a non-linear editing

apparatus. In such scenarios, the non-linear editing is performed for deriving a broadcast quality collection of video segments, which correspond to a predetermined presentation of content. Such off-line, non-linear procedures, although flexible, can be very time consuming, as they rely on human operators to arrange and edit video sequences.<sup>1</sup>

In light of at least the above deficiencies in the art, the present advancements are provided. With at least the above objects in mind, a brief comparison of the claimed advancements, in view of the cited references, is believed to be in order.

Applicants' new Claim 13 recites, *inter alia*, a camera-recorder apparatus, including:

. . . a metadata extraction unit operable to derive image property data from said image feature vector data substantially in real time at said capture of said video images, said image property data being associated with said respective images or groups of images and including sub shot segmentation data . . .

Fuller describes a metadata engine for use in a digital capture device. As shown in Fig. 1, a digital capture system (100) includes a visual and audio capture subsystem (200) and a content-based metadata generation engine (300). A collateral data gathering block (400), a data formatting unit (500), including optimal time-code marking (600) and data output and/or storage (700) are also provided. In operation, content may be accessed from a memory by the content-based analysis engine (300) for performing metadata extraction. The content analysis and metadata extraction may be affected by device state event triggers coming from block (402), which automatically define video clips in response to the "record" function of the device.<sup>2</sup>

Conversely, in an exemplary embodiment of the Applicants' advancements, a camera recorder apparatus includes an image capture device operable to capture a plurality of video

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<sup>1</sup> Application at pages 1-2.

<sup>2</sup> Fuller at column 5, lines 15-50.

images. A storage medium functions to store the captured video images for subsequent retrieval. A feature extraction unit is operable to derive image feature vector data from said image content of at least one of the video images substantially in real time at the capture of the video images, the image feature vector data is associated with respective images. A metadata extraction unit derives image property data from the image feature vector data in real time upon capture of the video images. The image property data is associated with respective images, or groups of images, and includes sub shot segmentation data.

As can be appreciated, the sub shot segmentation data of the Applicants' claimed advancement allows scene changes within a series of consecutive images to be flagged so as to assist in the editing process. Likewise, local changes of scenes, such as the entry of an actor into a scene, can be detected and flagged. As Fuller merely discloses a clip marking function for marking start and end point of a video clip according to input from the camera image,<sup>3</sup> it does not disclose, or suggest, Applicants' new Claim 13, or any claim depending therefrom.

Furthermore, Applicants' new Claim 16 recites that image property data includes activity measure data, which is indicative of a change of the image content or the audio content between video images. As Fuller merely discloses that clips may be annotated by the user entering text manually (column 9, lines 22-27), Fuller does not disclose, or suggest, Applicants' advancements as recited in Claim 16, or any claim depending therefrom..

Applicants' Claim 19 recites a more detailed advancement, in which image property data includes representative image data indicative of a predominant overall content of video images. As Fuller merely discloses identifying a key frame to use as metadata to mark the beginning or end of a clip (column 8, lines 62-65), Fuller does not disclose, or suggest,

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<sup>3</sup> See Fuller at column 8, line 57 through column 9, line 6.

producing representative image metadata that indicates the overall predominant content of the shots, as recited in Applicants' new Claim 19, or any claim depending therefrom.

Claim 22 recites a more detailed aspect of the Applicants' advancements, in which image property data includes interview detection data indicative of an interview sequence of the video images. The video images of the interview sequence include facial images and audio signals that are associated with the video images of the interview sequence comprising speech. As Fuller merely discloses speaker identification and face identification, Fuller does not disclose, or suggest, interview detection data, as presently recited in Applicants' new Claim 22, or any claim depending therefrom.

New Claim 26 recites a more detailed aspect of the Applicants' advancements, in which a feature extraction unit extracts image feature vector data and a metadata extraction unit derives image property data from the image feature vector data. Fuller does not disclose, or suggest, the combination of a feature extraction unit and a metadata extraction unit, as presently recited in new Claim 26, or any claim depending therefrom.

As Adcock does not remedy the deficiencies discussed above, Applicants submit that neither Fuller, or Adcock, alone or in combination, disclose or suggest the Applicants' claimed advancements.

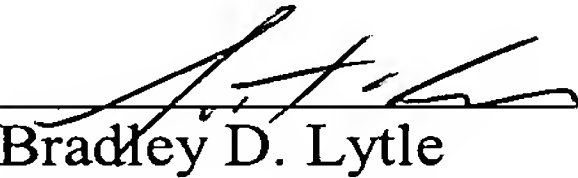
Accordingly, Applicants respectfully submit that new Claims 13-35 are allowable over the cited references.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 13-35, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

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